proctor®
Security Systems

proctor®
HD CCTV

Full HD
1080P

USER MANUAL

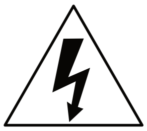
HD-SDI DNR DAY & NIGHT COLOR CAMERA

CAUTION

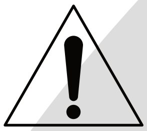
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER(OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

ISO14001 CE FC



The lightning flash with an arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

INFORMATION - This equipment has been tested and found to comply with limits for a Class A digital device, pursuant to part 15 of the FCC Rules & CE Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING - Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

CAUTION : To prevent electric shock and risk of fire hazards:
Do NOT use power sources other than those specified.
Do NOT expose this appliance to rain or moisture.

This installation should be made by a qualified service person and should conform to all local codes.

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General Features

DNR(Digital Noise Reduction)

HDPRO DNR technology utilizes both an adaptive 2D filter reducing noise in the brightness of the image and an adaptive 3D filter reducing noise caused by movement. The result is that HD-SDI camera supports Motion Adaptive DNR function that removes noise and greatly reduce motion blur.

HD(High Definition) Surveillance

HD-SDI Camera provides the superb surveillance conditions than normal VGA camera.

ACCE(Adaptive Color & Contrast Enhanment)

HD-SDI Image Enhancer source of the software can be activated. HD-SDI Image Enhancer improves the clarity of images taken in poor conditions such as fog, smoke, rain or snow. Applied to live or recorded video, it delivers real-time results and displays visual details that would otherwise have been difficult to see.

HLC(High Light Compensation)

High Light Compensation function is especially effective for reading car number plates at night time. Users can select and define the required observation area for the target object and ignore strong highlight areas.

Illumination

With an Incredibly Minimum Illumination of Amazing 0.017Lux can Capture Good Images Even in Extremely Low Light Conditions and Related Noises are Significantly Reduced by the Ultra Advanced DNR(Digital Noise Reduction) Technology.

Privacy Zone

A "Privacy zone" can be set if you desire to block viewing of specific areas in the picture.

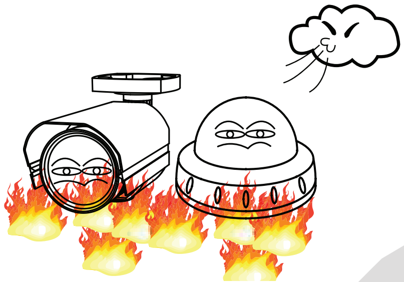
Additional Functions

OSD - On Screen Display menu

Privacy Masking - 8 zones, Sens-Up - x60 times, Digital Zoom - x64

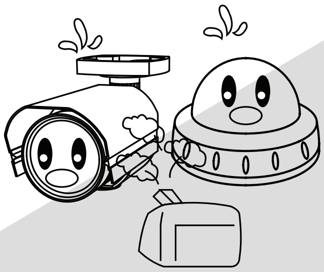
Precautions

Do not install the camera in extreme temperature conditions.



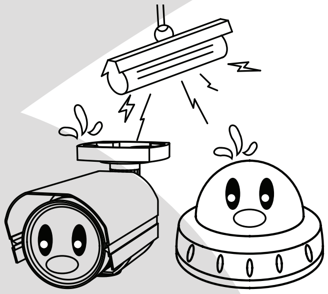
Only use the camera under conditions where temperatures are between -10°C and +50°C. Be especially careful to provide ventilation when operating under high temperatures.

Do not install or use the camera in an environment where the humidity is high.



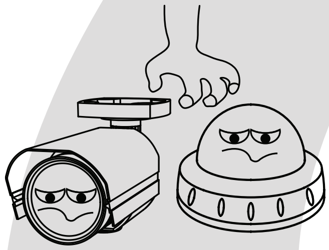
Do not install or use the camera in an environment where the humidity is high.

Do not install the camera under unstable lighting conditions.



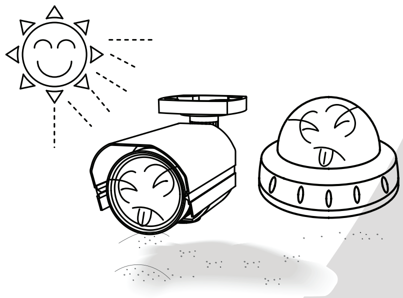
Severe lighting change or flicker can cause the camera to work improperly.

Do not touch the front lens of the camera.



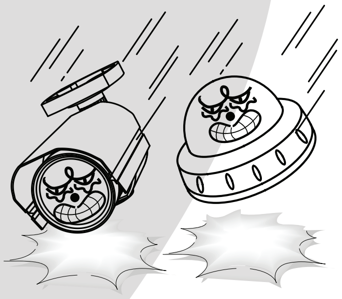
This is one of the most important parts of the camera. Be careful not to leave fingerprints on the lens cover.

Never keep the camera pointed directly at strong light.



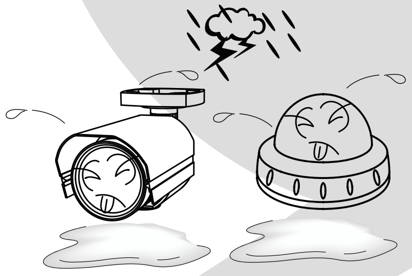
It can cause malfunctions to occur.

Do not drop the camera or subject it to physical shocks.



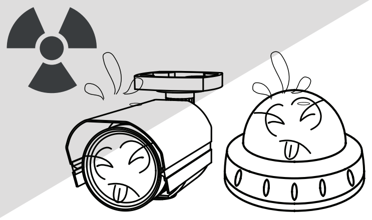
Severe lighting change or flicker can cause the camera to work improperly.

Do not expose the camera to rain or spill liquids on it.



If it gets wet, wipe dry immediately. Liquids can contain minerals that corrode the electronic components.

Do not expose the camera to radioactivity.



If exposed to radioactivity the CCD will fail.

NOTE

* If the camera is exposed to spotlight or object reflecting strong light, smear or blooming may occur.

* please check that the power satisfies the normal specification before connecting the camera.

Sefety Instructions

Precautions for use

This camera should be installed by qualified personnel only

There are no user serviceable parts inside

Do not disassemble this camera other than to make initial adjustments

Use a UL approved regulated 24 volt AC or 12 volt DC power supply

Use appropriate low voltage power cable to prevent fire or electrical shock

Please insure that your installation area can support the weight of the camera

Please handle this camera carefully :

Do not use a strong or abrasive detergent when cleaning the camera

Do not expose the camera to direct sun

Do not install camera in places where humidity is high

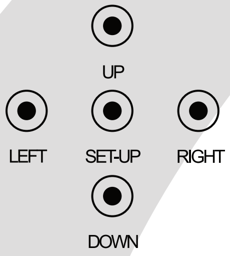
Do not install near cooling or heating device

Do not expose camera to rain or moisture

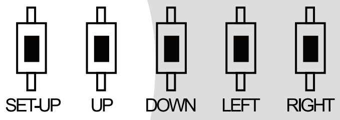
OSD Control Button

1. Type A, Type B, Type C of OSD button could be used when it needs to OSD control.
2. Type D is extra Option (wired Remote controller)

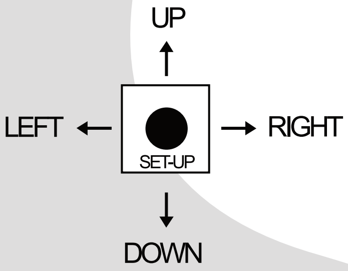
Type A


UP
LEFT
SET-UP
RIGHT
DOWN

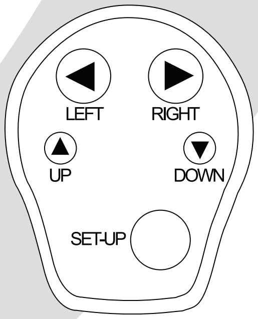
Type.B


SET-UP
UP
DOWN
LEFT
RIGHT

Type C


UP
LEFT
SET-UP
RIGHT
DOWN

Type D (Option)


LEFT
RIGHT
UP
DOWN
SET-UP

How to Set Up the camera menu

● Setup Menu

SET UP MENU	DEFAULT SET	MENU			
LENS	DC				
	VIDEO				
	MANUAL				
EXPOSURE	SHUTTER	AUTO,1/25,1/30,1/60,1/50, FLK,1/120 1/250, 1/500, 1/1000, 1/2000, 1/5000, 1/10000,1/50000, x2, x4, x6, x8, x10, x15, x20, x25, x30, x60			
	AGC	OFF			
		LOW			
		MIDDLE			
		HIGH			
	SENSE-UP	AUTO	SENSE-UP(x2 ~ x60 Level Selectable)		
			RETURN	RET	
				END	
		OFF			
	BRIGHTNESS	0~100 Level Selectable			
	ACCE	OFF			
		LOW			
		MIDDLE			
		HIGH			
	DEFOG	OFF			
		LOW			
		MIDDLE			
		HIGH			
	BLC	OFF			
		BLC	GAIN	LOW	
				MIDDLE	
				HIGH	
			AREA	POSITION	
				SIZE	
				AGAIN	
			DEFAULT		
			RETURN	RET	
				END	
		HSBLC	SELECT	AREA1 ~ AREA4	
			DISPLAY	ON	POSITION
					SIZE
					RET/AGAIN
				OFF	
			LEVEL	0 ~ 100 Level Selectable	
			MODE	ALL DAY	
				NIGHT ONLY	
			BLACK MASK	ON/OFF	
			DEFAULT		
			RETURN	RET	
				END	
	RETURN	RET			
		END			
WHITE BAL	ATW				
	AWC->SET				
	INDOOR				
	OUTDOOR				
	MANUAL	BLUE (0 ~100 Level Selectable)			
		RED (0 ~100 Level Selectable)			
		RETURN	RET		
			END		
DAY/NIGHT	COLOR				
	B/W	BURST	ON/OFF		
		IR SMART	ON	LEVEL	0 ~ 15 Level Selectable
				AREA	POSITION
					SIZE
					RET/AGAIN
			OFF		
		IR LED	ON/OFF		
		IR PWM	0 ~ 100 Level Selectable		
		RETURN	RET		
			END		
	EXT				
	AUTO	DELAY	0 ~60 Level Selectable		
		D --> N (AGC)	0 ~ 100 Level Selectable		
		N --> D (AGC)	0 ~ 100 Level Selectable		
		RETURN	RET		
			END		

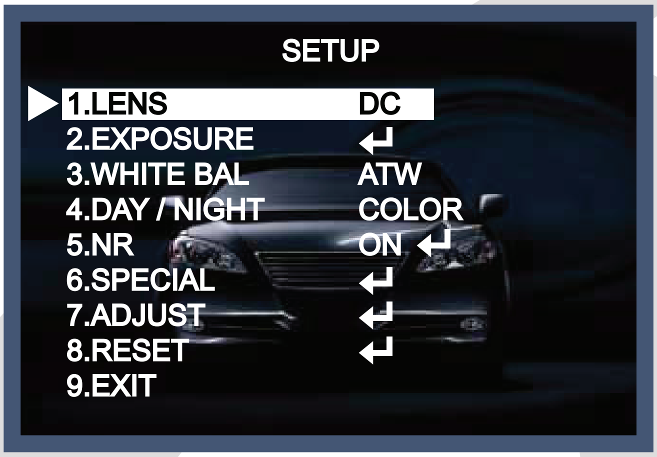
NR	2DNR	ON/OFF			
	3DNR	ON/OFF			
	LEVEL	0 ~ 100 Level Selectable			
	SMART NR	ON/OFF			
	RETURN	RET			
		END			
SPECIAL	CAM TITLE	ON	TITLE & POSITION		
		OFF			
	D-EFFECT	FREEZE	ON/OFF		
		MIRROR	MIRROR		
			V-FLIP		
			ROTATE		
			OFF		
		D-ZOOM	ON	PIP	ON/OFF
				D-ZOOM	x2 ~ x60 Level Selectable
				PAN&TILT	PIP/D-ZOOM
				DEFAULT	
				RETURN	RET
					END
			NEG. IMAGE	ON/OFF	
			RETURN	RET	
				END	
	MOTION	ON	AREA SELECT	AREA1 ~ AREA3	
			DISPLAY	ON	POSITION
					SIZE
					RET/AGAIN
				OFF	
			AREA DISPLAY	POSITION	
				SIZE	
				AGAIN	
			SENSITIVITY	0 ~ 60 Level Selectable	
			MOTION VIEW	ON/OFF	
			DEFAULT		
			RETURN	RET	
				END	
		OFF			
	PRIVACY	ON	AREA SELECT	AREA1 ~ AREA8	
			AREA DISPLAY	ON	POSITION
					SIZE
					RET/AGAIN
				OFF	
			COLOR	0 ~ 16 Selectable	
			DEFAULT		
			RETURN	RET	
				END	
		OFF			
	LANGUAGE	ENGLISH			
	DEFECT	LIVE DPC	ON/OFF		
		LEVEL	0 ~ 60 Level Selectable		
		STATIC DPC	ON/OFF		
		START			
		LEVEL	0 ~ 60 Level Selectable		
		SENS-UP	x2 ~ x60 Level Selectable		
		RETURN	RET		
			END		
	RS485 (OPTION)	CAM ID	0 ~ 255 Selectable		
		ID DISPLAY	ON/OFF		
		BAUDRATE	2400/4800/9600/19200/3840057600		
		RETURN	RET		
			END		
	RETURN	RET			
		END			
	SHARPNESS	SHARPNESS	ON/OFF		
		LEVEL	0 ~100 Level Selectable		
ADJUST		RESOLUTION	ON/OFF		
		RETURN	RET		
			END		
	MONITOR	LCD	GAMMA	USER, 0.45 ~ 1.00 Level Selectable	
			BLUE GAIN	0 ~ 100 Level Selectable	
			RED GAIN	0 ~ 100 Level Selectable	
			RETURN	RET	
				END	
		CRT	BLACK LEVEL	-30 ~ 30 Level Selectable	
			BLUE GAIN	0 ~ 100 Level Selectable	
			RED GAIN	0 ~ 100 Level Selectable	
			RETURN	RET	
				END	
	OSD	TEXT COLOR	1 ~ 8 Level Selectable		
		OUTLINE	ON/OFF		
		BACK TABLE	ON/OFF		
		RETURN	RET		
			END		
	LSC	ON/OFF			
	RETURN	RET			
		END			
RESET	FACTORY	RESET			
	RETURN	RET			
		END			
EXIT					

Menu Set Up

Menu items can be selected by using the OSD buttons of the camera

1. Press the Set Up button.

* The Set Up menu will be displayed on the monitor.

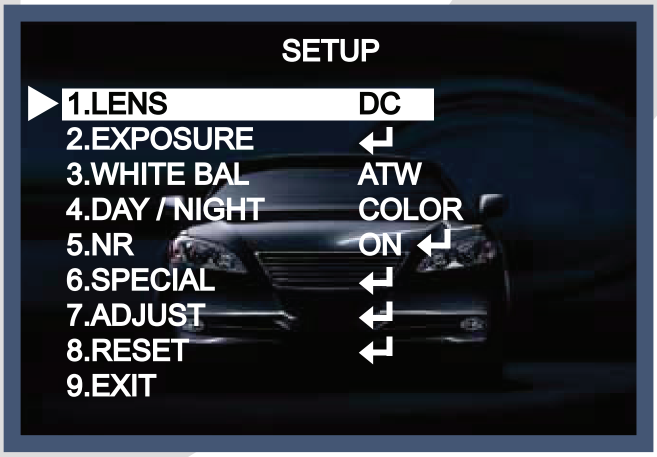


SETUP

▶ 1.LENS	DC
2.EXPOSURE	↵
3.WHITE BAL	ATW
4.DAY / NIGHT	COLOR
5.NR	ON ↵
6.SPECIAL	↵
7.ADJUST	↵
8.RESET	↵
9.EXIT	

2. Move and select the required function using the Up and Down button.

* Move the arrow indicator Up or Down to select the desired feature by pressing the Up or Down button.



SETUP

▶ 1.LENS	DC
2.EXPOSURE	↵
3.WHITE BAL	ATW
4.DAY / NIGHT	COLOR
5.NR	ON ↵
6.SPECIAL	↵
7.ADJUST	↵
8.RESET	↵
9.EXIT	

3. Change menu settings using the Left or Right button.

* Available values or Status are displayed by pressing the Left or Right buttons.
Press the button until desired value / status is displayed.

4. After Changing the setting move the arrow indicator to EXIT and press the SET button to EXIT.

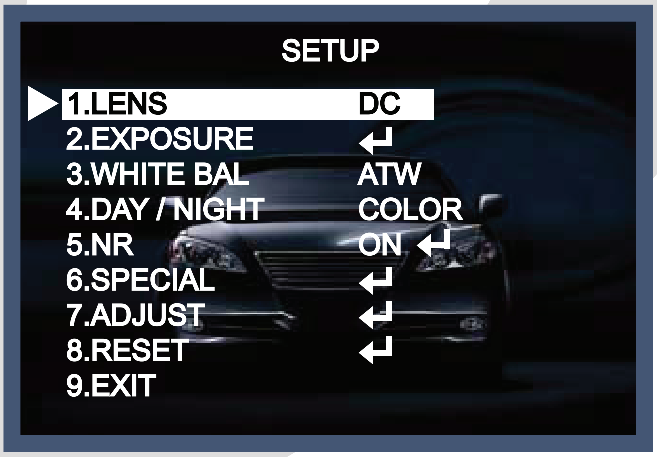
NOTE

* Move to the available submenu by moving ↵ arrow to desired feature.

* Submenu is not available when this symbol is display "- - - -"

Lens

1. Move the arrow indicator to LENS using the Up and Down buttons on the Set Up menu screen.
2. Select the desired lens type by pressing the Left or Right button.



SETUP

▶ 1.LENS DC
2.EXPOSURE ↵
3.WHITE BAL ATW
4.DAY / NIGHT COLOR
5.NR ON ↵
6.SPECIAL ↵
7.ADJUST ↵
8.RESET ↵
9.EXIT

→ DC: DC Auto Iris Lens
Video: Video Lens
Manual: C-Mount Lens

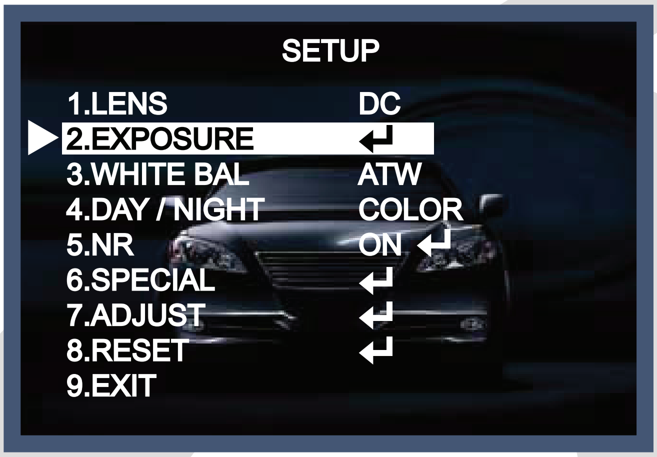
3. Press the RETURN to return to the SETUP menu.

Exposure

This function is used to select Automatic or Manual shutter speed control.

1. On the Set Up menu screen select EXPOSURE by using the Up or Down button.

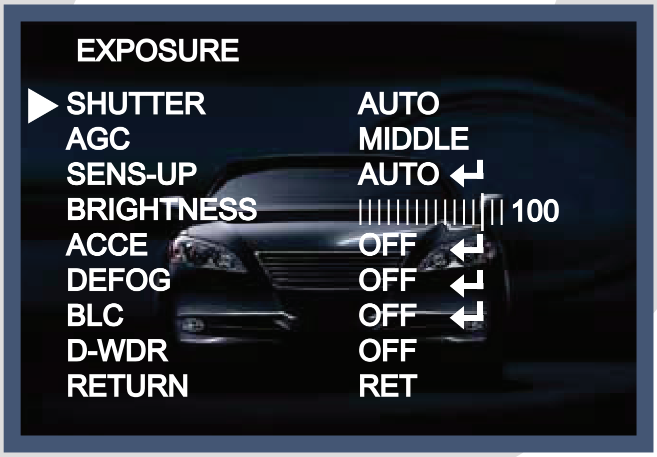
2. Select the desired shutter mode by pressing the Left or Right button.



SETUP

1.LENS	DC
▶ 2.EXPOSURE	↵
3.WHITE BAL	ATW
4.DAY / NIGHT	COLOR
5.NR	ON ↵
6.SPECIAL	↵
7.ADJUST	↵
8.RESET	↵
9.EXIT	

* FLK : Select FLK mode when flickering occurs; caused by the unmatched frequency of electric lights.



EXPOSURE

▶ SHUTTER	AUTO
AGC	MIDDLE
SENS-UP	AUTO ↵
BRIGHTNESS	100
ACCE	OFF ↵
DEFOG	OFF ↵
BLC	OFF ↵
D-WDR	OFF
RETURN	RET

NOTE

*Shutter: Select Shutter using the Up or Down button, you can adjust the shutter speed from AUTO,1/25,1/30,1/60,1/50, FLK,1/120 1/250, 1/500, 1/1000, 1/2000, 1/5000, 1/10000,1/50000, x2, x4, x6, x8, x10, x15, x20, x25, x30, x60

→FLK: Select FLK mode if flickering occurs; caused by the unmatched frequency of electric light. If select FLK mode, sense-up does not operate.

*Low Shutter Control: sensitivity boost up by frame accumulation for extremely low illumination conditionspeed

* AGC(AUTO GAIN CONTROL):

A higher gain increases brightness but also increases any noise.

OFF : Deactivates the AGC function

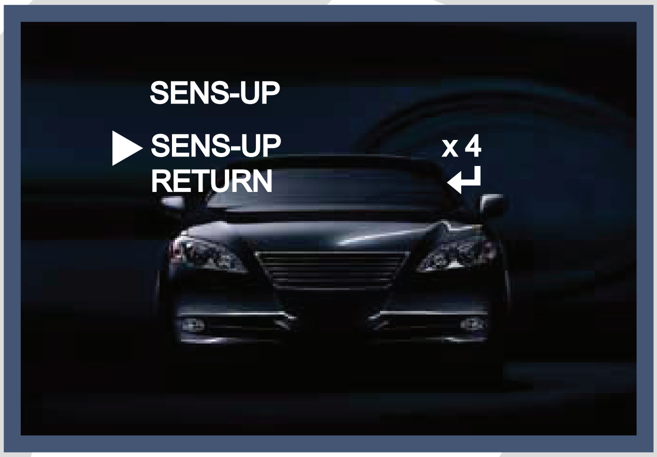
LOW : Sets automatic gain control to LOW.

MIDDLE : Sets automatic gain control to MIDDLE.

HIGH : Sets automatic gain control to HIGH

* SENS - UP:

At night and/or in dark conditions, the Sens-Up mode can be selected to desired value from x2 ~ x256.

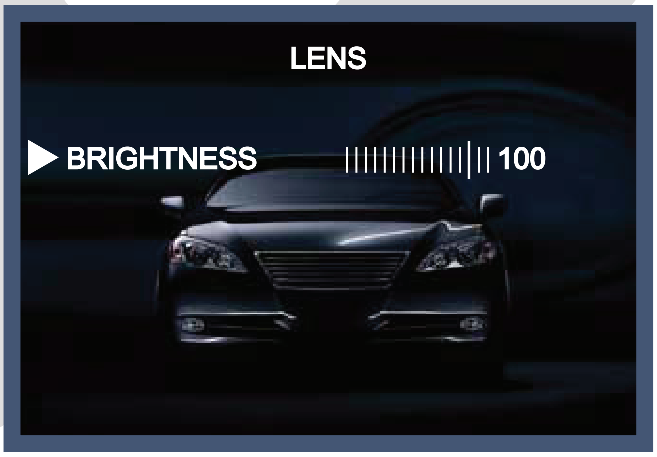


SENS-UP

▶ SENS-UP x 4

RETURN ↵

* When DC is selected, the brightness can be adjusted. The brightness control range is 1 ~ 100.



LENS

▶ BRIGHTNESS 100

* RETURN:

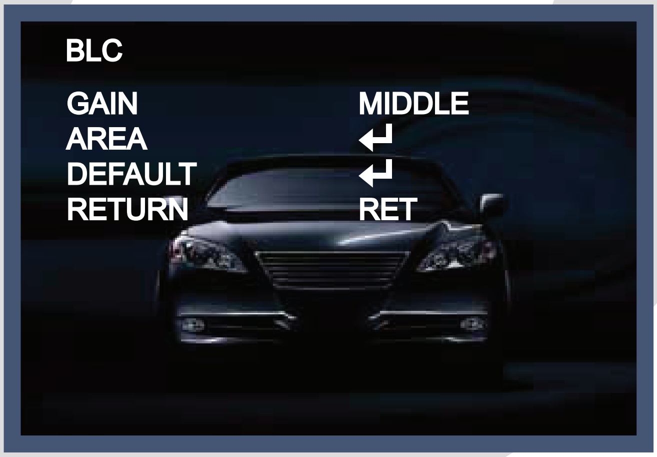
Select Return to save the changes in the EXPOSURE menu and retun to the SETUP menu.

NOTE

* Pressing the SET button in AUTO mode allows adjustment of image brightness by increasing or decreasing the shutter speed (x2 ~x60).
* The higher the level, the brighter the image becomes, but it is possible that an after image (ghosting) could appear.
* When SENS-UP is activated the increased magnification can induce noise and pixelation; this is quite normal.

Back Light(BLC)

This camera witch is using 3D-DNR DSP provides intelligent light level control to overcome even strong backlight conditions.



BLC

GAIN MIDDLE
AREA ↵
DEFAULT ↵
RETURN RET

* OFF: BLC function does not operate.

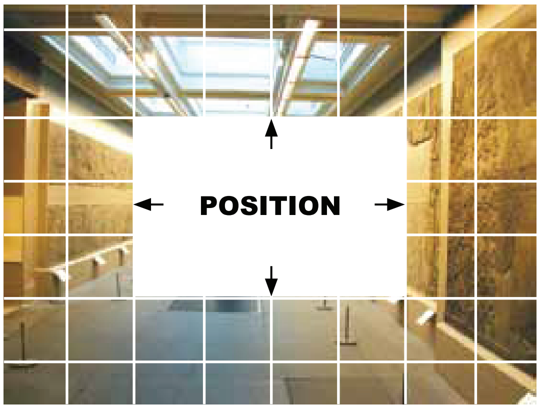
* BLC: Select LOW/MID/HIGH

User can select and define a specific area in scene and view the area clearly.

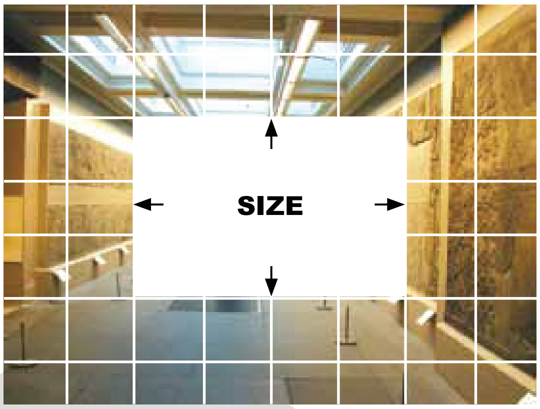
Press the "ENTER" button at the AREA menu, you can change the area like a picture 1.

Press the "ENTER" button again after area setting, you can change the area like a picture 2.

Default: Press the Default to return to factory defaults.



PICTURE 1



PICTURE 2

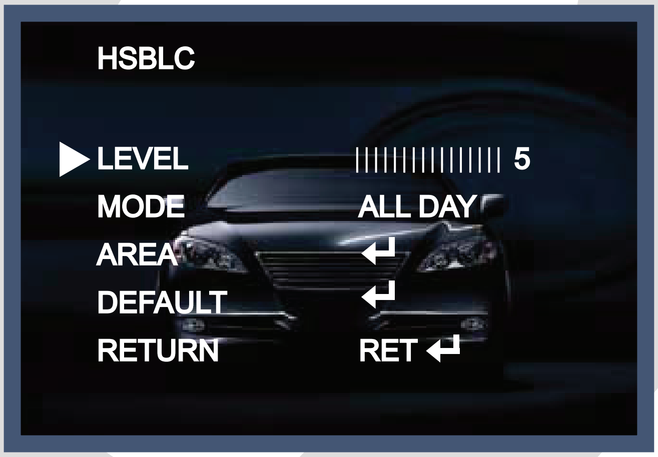
* HSBLE: HSBLC function is especially effective for reading car number plates at the night time.

You can select and define the required observation area for the target object and ignore a strong light area.

Press the "ENTER" button at the AREA menu, you can change the position as shown in Picture 1.

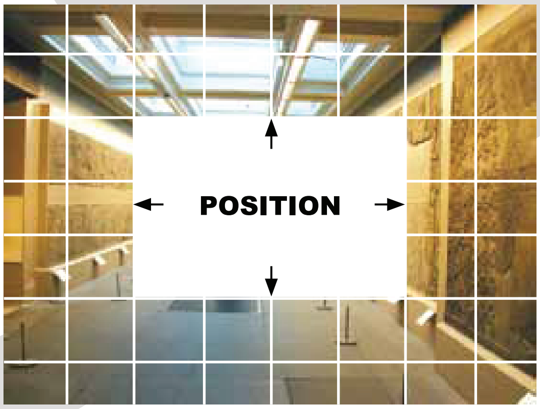
Press the "ENTER" button again after area setting, you can change the position as shown in Picture 2.

Default: Press the Default to return to factory defaults.

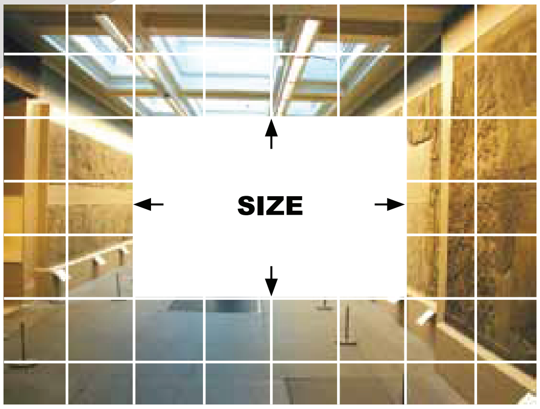


HSBLC

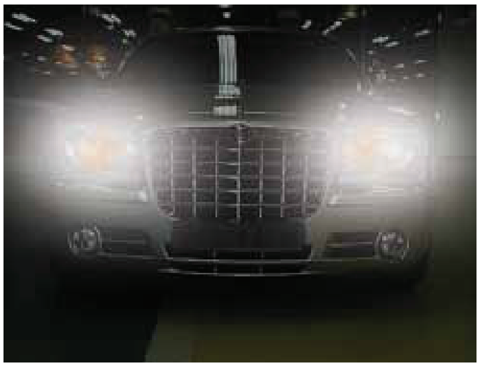
▶ LEVEL ||||||||||||||| 5
MODE ALL DAY
AREA ↵
DEFAULT ↵
RETURN RET ↵



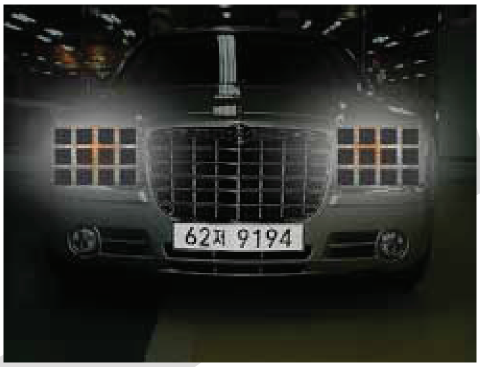
PICTURE 1



PICTURE 2



HSBLC OFF

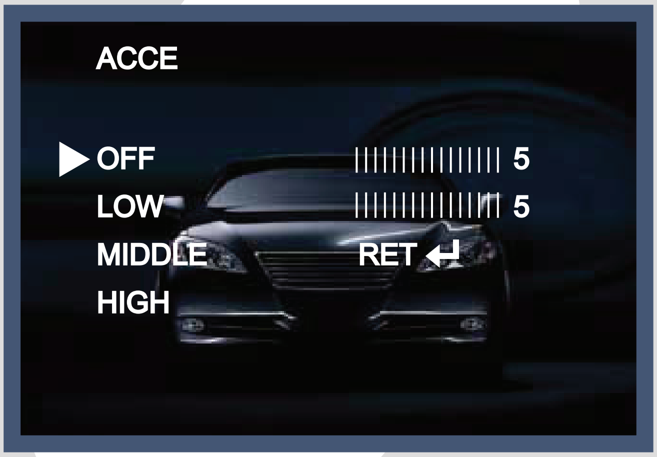


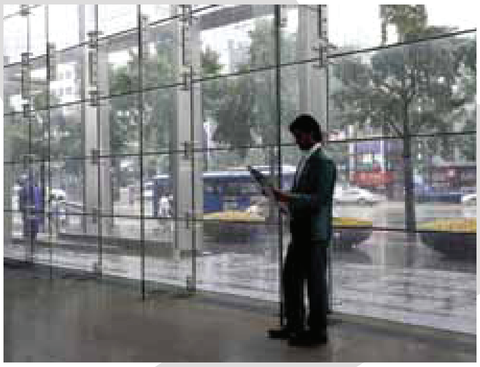
HSBLC ON

* ACCE: contrast enhancement by Digital Dynamic Range Compensation.

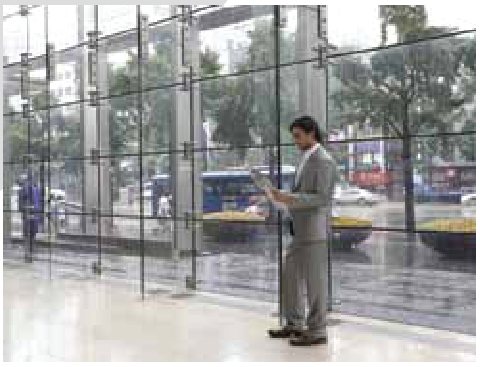
→OFF: ACCE function does not operate.

When there are simultaneous bright & dark image area WDR makes them both distinct and can be selected as Low and Middle and Hight.





ACCE OFF



ACCE ON

* RETURN: Select Return to save the changes in the EXPOSURE menu and return to the SETUP menu.

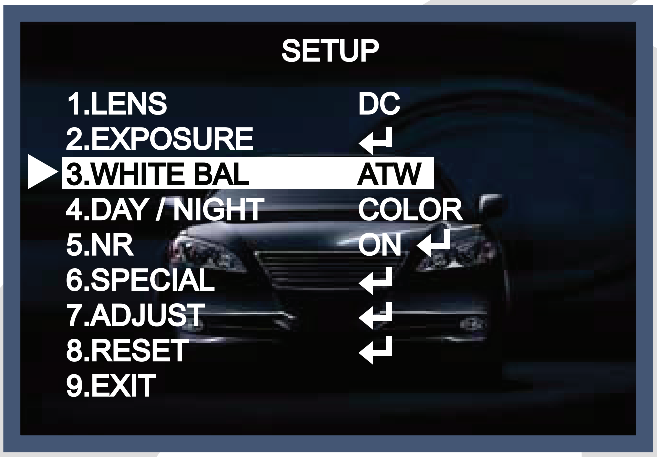
* DEFOG: adaptive visibility enhancement on the low contrast scene.

White Balance

The White Balance function is used to control the “on-screen” colors.

1. Move the arrow indicator to WHITE BAL on the SETUP menu screen using the Up and Down button.

2. Select the desired mode by using the Left or Right button.



SETUP

1.LENS DC
2.EXPOSURE ↵
▶ 3.WHITE BAL ATW
4.DAY / NIGHT COLOR
5.NR ON ↵
6.SPECIAL ↵
7.ADJUST ↵
8.RESET ↵
9.EXIT

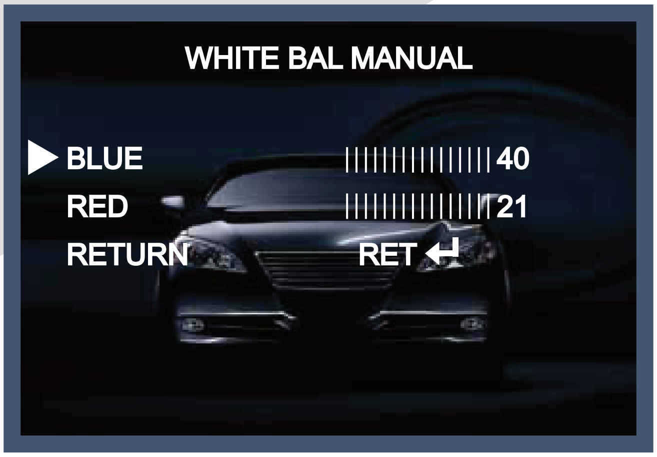
*** There are three user selectable White Balance settings available.**

* ATW : (Auto Tracking White Balance)

Normal setting; when the color temperature range is from 1,800˚K to 10,500˚K. (Ex: a fluorescent lamp or outdoors)

* AWC SET : To obtain the best results press the SET button while the camera is focused onto white paper. If the environment, and/or light source changes, the White Balance will require re-adjustment.

* MANUAL : Used for fine adjustment of White Balance. Set White Balance first using ATW or AWC then change to MANUAL and press SETUP button. Increase or decrease the value of R-Gain(Red) and B-Gain(Blue) while monitoring the color of the image.



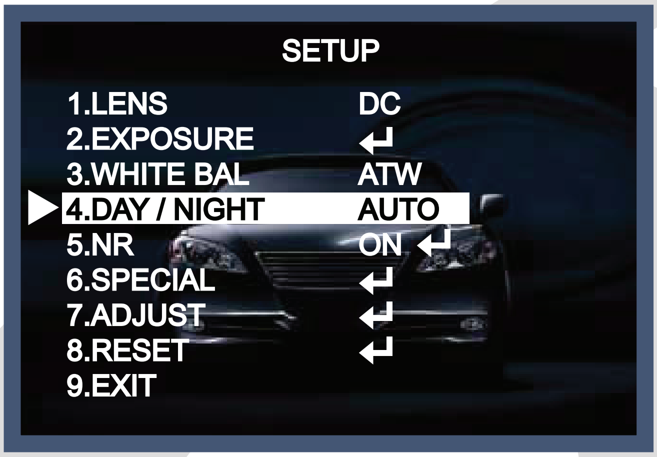
WHITE BAL MANUAL

▶ BLUE ||||||||||||||| 40
RED ||||||||||||||| 21
RETURN RET ↵

Day / Night

Picture can be displayed in either colour of black and white.

1. Select DAY / NIGHT using the Up or Down button on the SETUP menu screen.



SETUP

1.LENS DC
2.EXPOSURE ↵
3.WHITE BAL ATW
▶ 4.DAY / NIGHT AUTO
5.NR ON ↵
6.SPECIAL ↵
7.ADJUST ↵
8.RESET ↵
9.EXIT

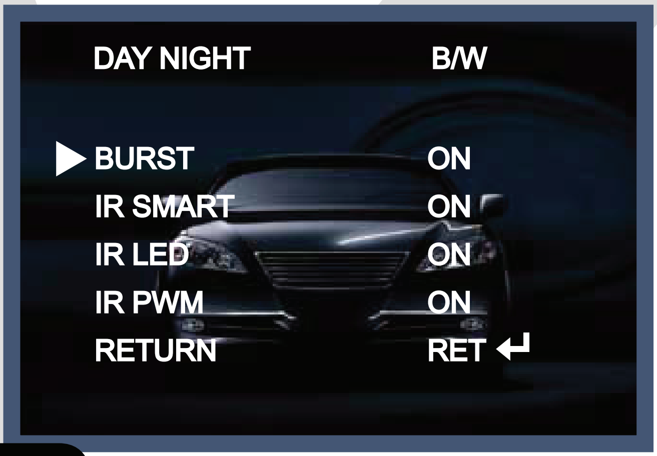
2. Select the desired mode using the Left and Right buttons.

* COLOR : The picture is always displayed in color.

* BW : This picture is always displayed in black and white.

Select BW using the button and press the menu to activate COLOR BURST option.

IR SMART : It controls the IR LED(bright portion base), satuation is not expected.

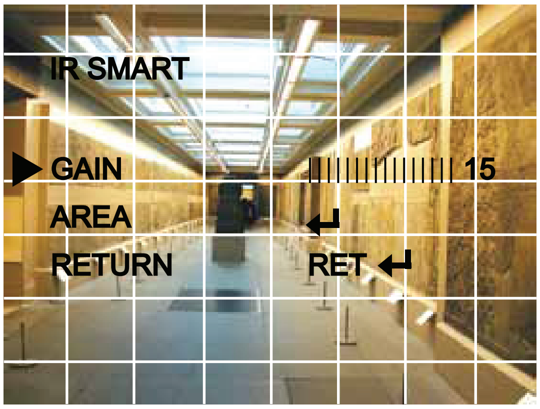


DAY NIGHT B/W

▶ BURST ON
IR SMART ON
IR LED ON
IR PWM ON
RETURN RET ↵

NOTE

* "IR LED", "IR PWM" Is a function that does not use.

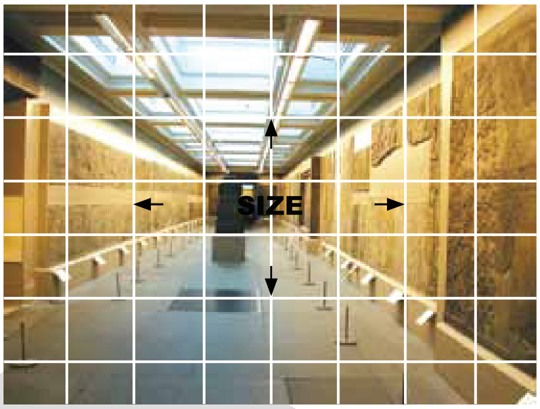


IR SMART

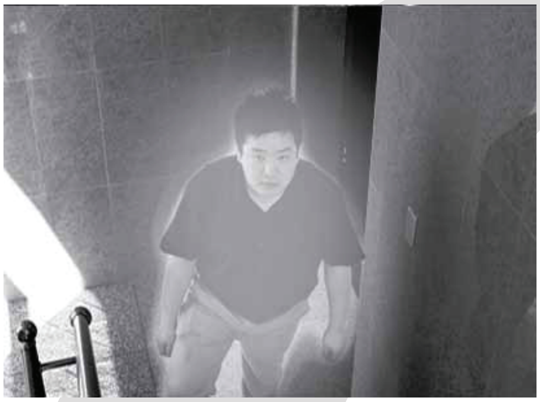
GAIN 15

AREA ↵

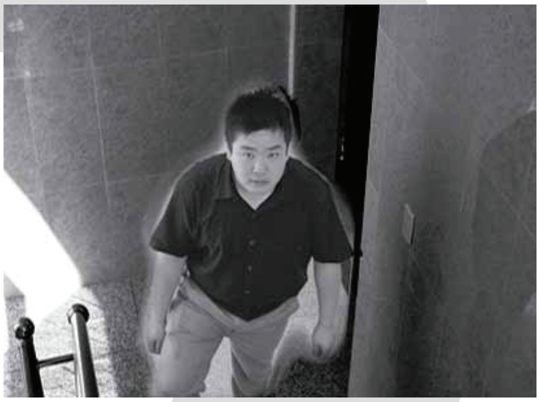
RETURN RET ↵



AREA



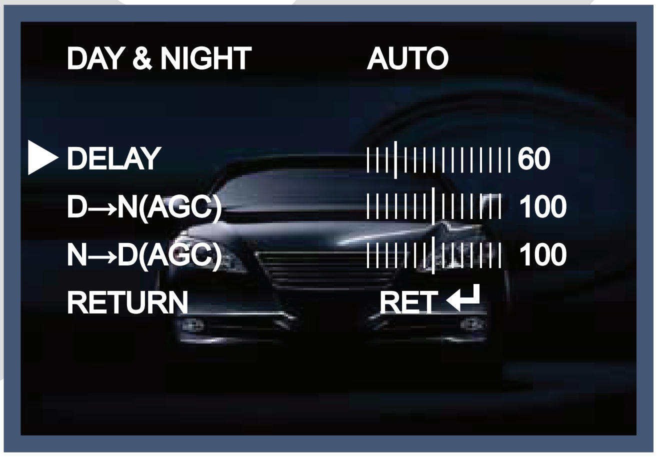
SMART IR OFF



SMART IR ON

AUTO: The mode will automatically switches to COLOR in normal condition and switches to BW mode when ambient illumination is low.

Press the SET button to set the switching time or D→N(AGC), N→D(AGC) in AUTO mode.



DAY & NIGHT AUTO

DELAY 60

D→N(AGC) 100

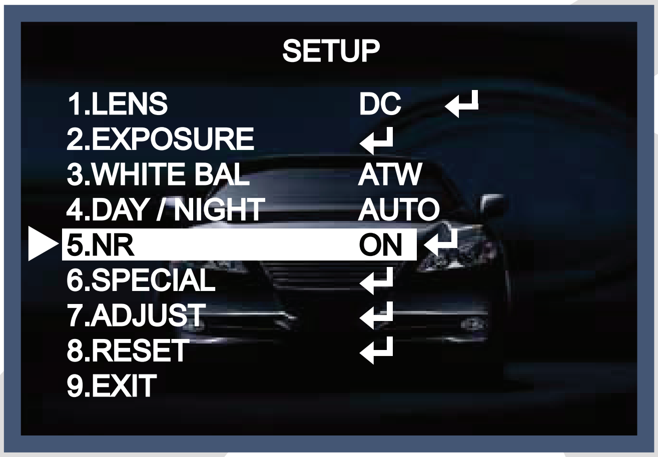
N→D(AGC) 100

RETURN RET ↵

NR

3DNR is used to reduce the level of background noise in a low luminance environment.

1. Move the arrow indicator to NR by using the Up and Down button.



SETUP

1.LENS DC ↵
2.EXPOSURE ↵
3.WHITE BAL ATW
4.DAY / NIGHT AUTO
▶ 5.NR ON ↵
6.SPECIAL ↵
7.ADJUST ↵
8.RESET ↵
9.EXIT

2. Select whether or not to activate 2DNR by using the Left and Right buttons.

: based on noise variance from AGC value

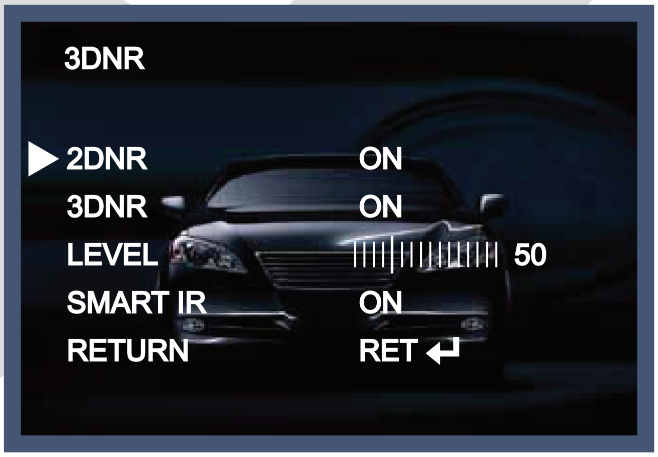
: 2D-edge preserving & flat area noise reduction

3. Select whether or not to activate 3DNR by using the Left and Right buttons.

: motion adaptive temporal IIR filtering

: edge preserving & ghost elimination

: adaptive weight control by noise level



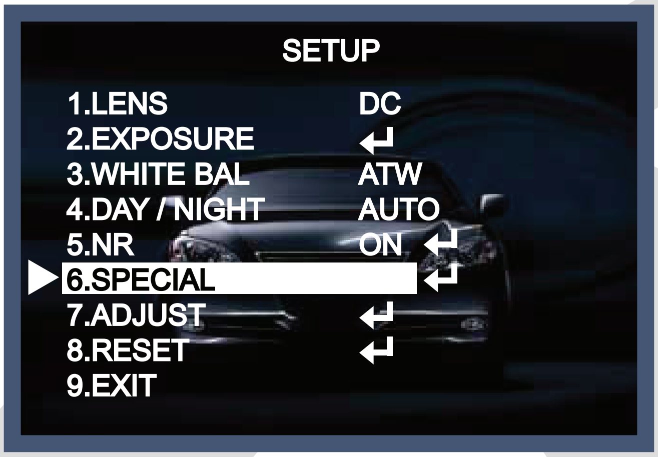
3DNR

▶ 2DNR ON
3DNR ON
LEVEL 50
SMART IR ON
RETURN RET ↵

* Select RETURN by using the Up or Down button to return to Set Up menu.

Special

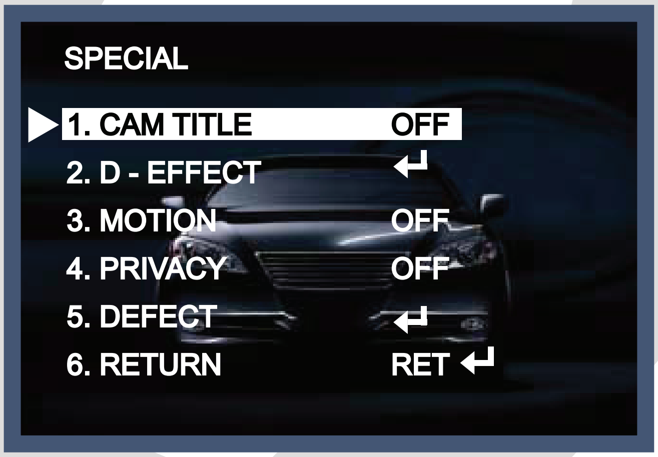
When the SETUP menu screen is displayed, select SPECIAL using the Up and Down buttons.



SETUP

1.LENS DC
2.EXPOSURE ↵
3.WHITE BAL ATW
4.DAY / NIGHT AUTO
5.NR ON ↵
▶ 6.SPECIAL ↵
7.ADJUST ↵
8.RESET ↵
9.EXIT

Select one of the mode using the Up and Down button.



SPECIAL

▶ 1. CAM TITLE OFF
2. D - EFFECT ↵
3. MOTION OFF
4. PRIVACY OFF
5. DEFECT ↵
6. RETURN RET ↵

1. CAM TITLE : When input, the Camera ID is displayed on the monitor.

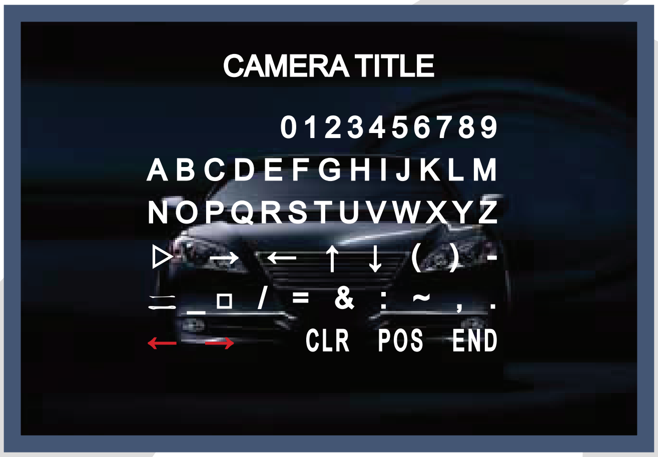
1-1) Move the arrow indicator to CAMERA ID using the Up or Down button on the SETUP menu screen.

1-2) Set to ON using the Left or Right button.

NOTE

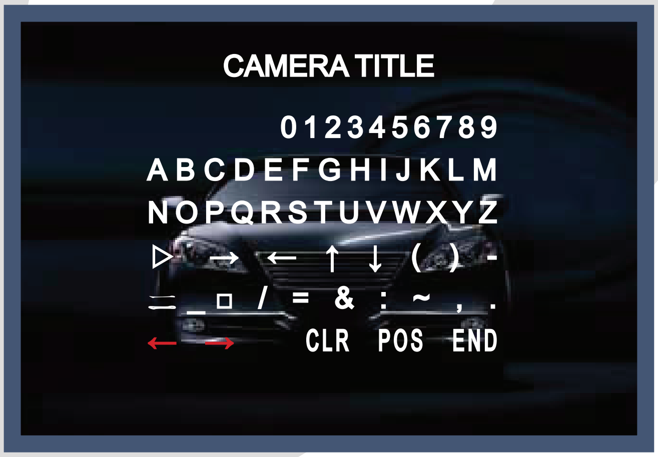
* When CAMERA TITLE is set to OFF, the CAMERA TITLE is not displayed on the monitor.

1-3) Press the SETUP button.


CAMERA TITLE
0123456789
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
▷ → ← ↑ ↓ ( ) -
_ _ ◻ / = & : ~ , .
← → CLR POS END

1-4) The CAMERA TITLE can be up to 15 alphanumeric characters in length.

① Move the cursor to choose an alphanumeric character.


CAMERA TITLE
0123456789
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
▷ → ← ↑ ↓ ( ) -
_ _ ◻ / = & : ~ , .
← → CLR POS END

② Choose a character in displayed range A~Z, a~z, 0~9 using the Up, Down, Left and Right buttons.

③ Select the desired character by pressing the SETUP button.

- The cursor moves to the next position, after character input, by pressing the SETUP button.

④ Repeat the above steps until the Camera ID has been created.

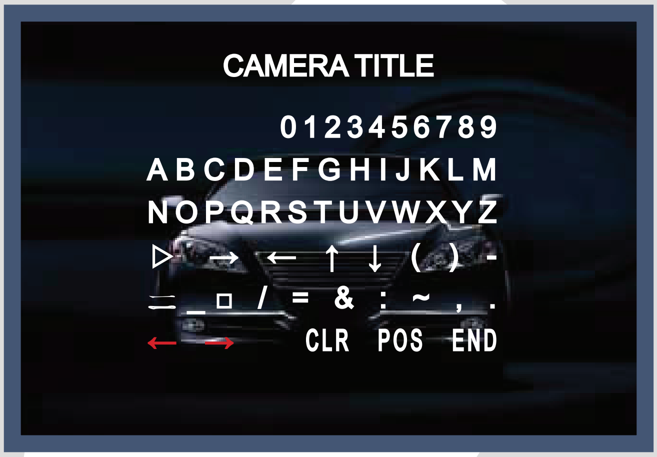
NOTE

* In cases where the wrong Camera ID has been input........

Move the cursor to CLR and press SETUP button to erase characters from left to right, and repeat the above steps to input the characters again.

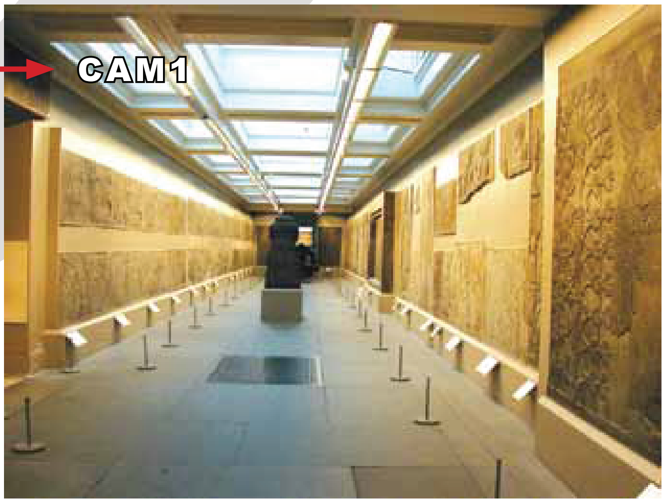
1-5) To select the position where the Camera ID should be displayed on the screen.

① Move the cursor to POS and press the SET button.


CAMERA TITLE
0 1 2 3 4 5 6 7 8 9
A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z
▷ → ← ↑ ↓ ( ) -
_ □ / = & : ~ , .
← → CLR POS END

② Created camera ID is displayed.

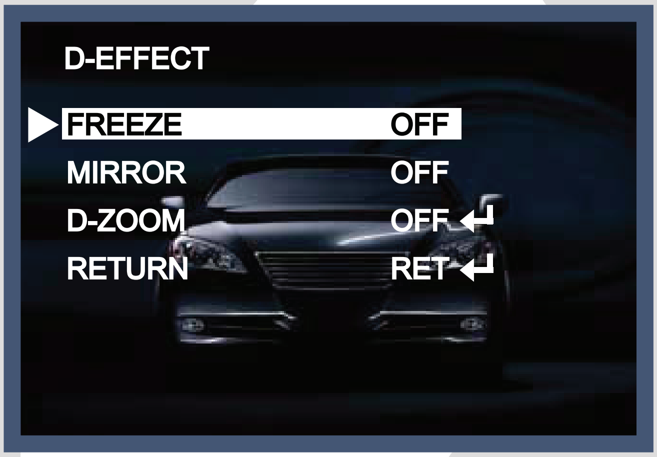
(Factory default position)



③ Select a new position by using the four directional button, Press the SET button to confirm the position.

2. D - EFFECT

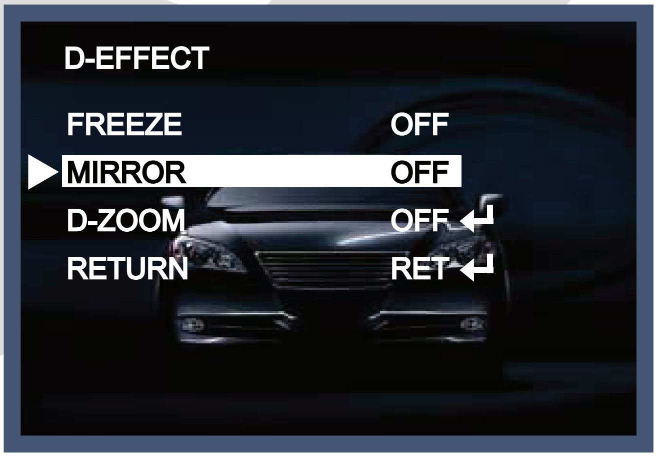
Move the cursor to D-EFFECT and press the SET button to set the other image functions.



D-EFFECT

▶ FREEZE OFF
MIRROR OFF
D-ZOOM OFF ↵
RETURN RET ↵

2 -1) MIRROR : Flip the image horizontally on the screen.



D-EFFECT

FREEZE OFF
▶ MIRROR OFF
D-ZOOM OFF ↵
RETURN RET ↵

* V-FLIP : Flip the image vertically on the screen.

* ROTATE : Flip the horizontal image vertically on the screen.

* OFF : Disabled.

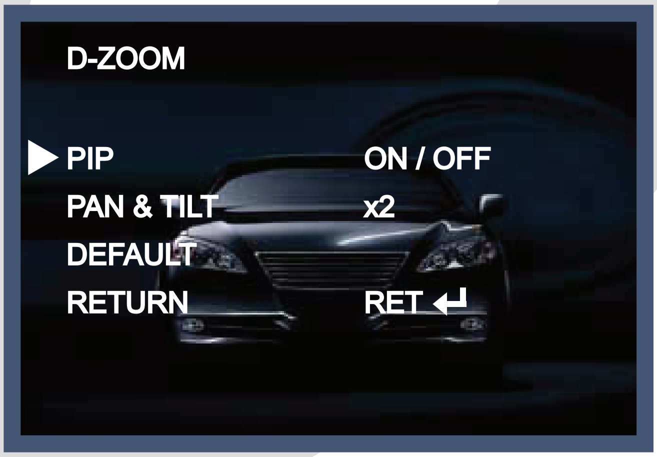
MIRROR ON

MIRROR OFF

2-2) DIGITAL - ZOOM: up to x64 bi-cubic linear digital zoom and PIP using anti-aliasing down scaling.

PAN : The pan range can be controlled between -10 ~ + 100

TILT : The tilt range can be controlled between -10 ~ + 100



D-ZOOM

▶ PIP ON / OFF
PAN & TILT x2
DEFAULT
RETURN RET ↵

NOTE

* PAN and TILT function should be available when using the digital zoom.

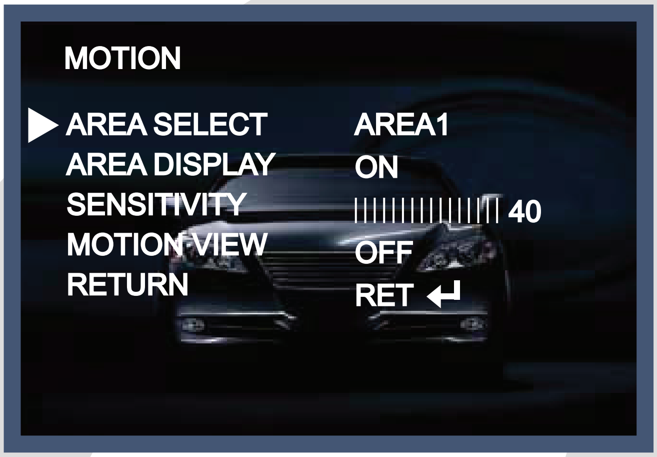
2-3) NEG. IMAGE :

ON : Activates negative image just like film

OFF : Normal image

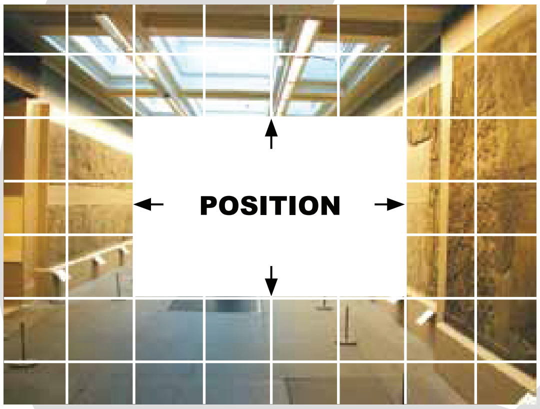
2-4) RETURN : Move the arrow indicator to RETURN after complete the setup to return to SPECIAL menu.

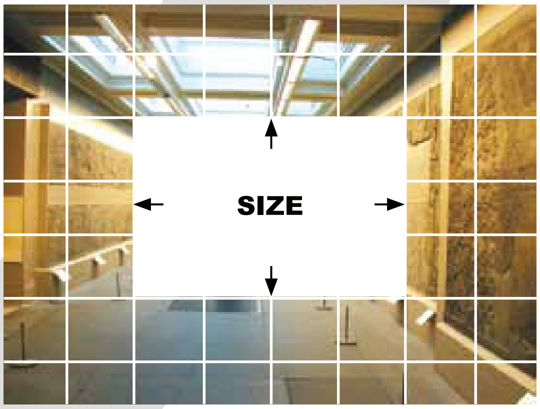
3. MOTION



MOTION

▶ AREA SELECT AREA1
AREA DISPLAY ON
SENSITIVITY ||||||||||||||| 40
MOTION VIEW OFF
RETURN RET ↵





3-1) When the special menu screen is displayed, use the Up or Down botton to access the MOTION menu.

AREA SELECT : You can select from area 1~3 position.

AREA DISPLAY) ON: Display the Motion Detected area on the screen. You can set the location and size like a picture 1,2.

SENSITIVITY: To setup the motion sensitivity. You can adjust the motion sensitivity of a movement between level 0~40.

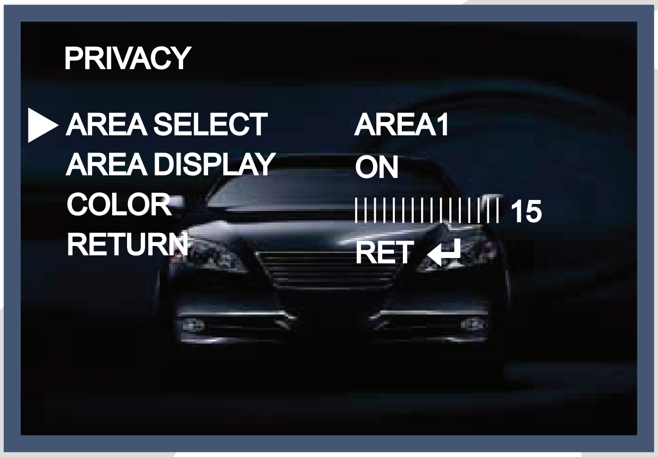
MOTION VIEW : If camera detects movement, the words of "MOTION DETECTION" will appear on the monitor.

RETURN : To return to the SPECIAL menu after completing the setup.

4. PRIVACY

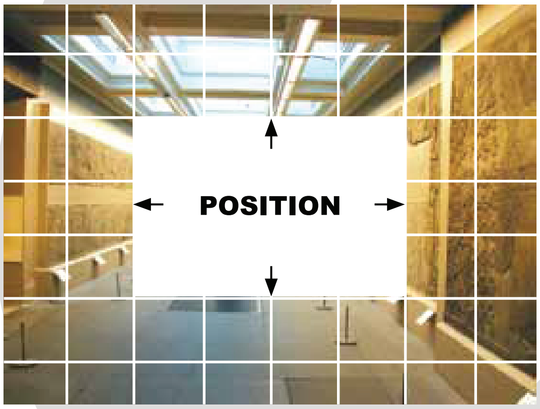
Hide an area you want to hide on the screen.

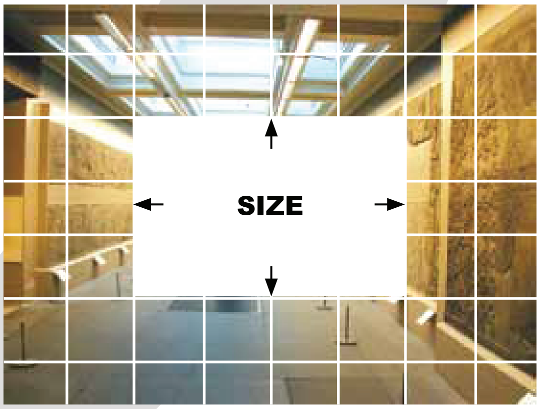
4-1). When the SPECIAL menu screen is displayed, press the Up and Down buttons to set to PRIVACY.



PRIVACY

▶ AREA SELECT AREA1
AREA DISPLAY ON
COLOR ||||||||||||||| 15
RETURN RET ↵





4-2). Set up the area mode using the 4 direction buttons.

① AREA SELECT : You can select up to 8 MD area.

② AREA DISPLAY : OFF : Disabled

ON : Activates area displa

③ Move the arrow indicator to WIDTH to make desired width of cells to increase or decrease by using the Left / Right button between the level 0 ~ 100.

④ Move the arrow indicator to HEIGHT to make desired height of cells to increase or decrease by using the Left / Right button between the level 0 ~ 100.

⑤ Move the arrow indicator to the LEFT / RIGHT and TOP / BOTTOM to select the desired area positon by using the LEFT or RIGHT button.

⑥ Move the arrow indicator to COLOR to select the desired color of each area cells by using the Left / Right button to select between the 15 different color.

RETURN : Move the arrow indicator to RETURN after completing the setup to return to SPECIAL menu.

4-3) SYNC : INT (Internal Synchronisation)

Move the arrow indicator to RETURN after complete the setup to return to SETUP menu.

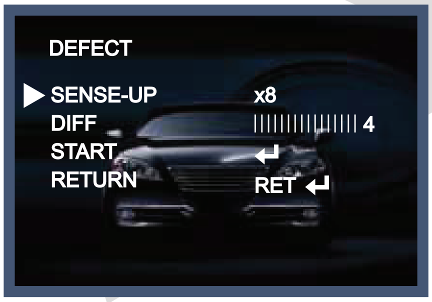
5. DEFECT

SENSE-UP : To eliminate defect, set the high level of sense-up. You can set to max 60x, but 10x is best to eliminate defect.

DIFF : You can set the size of DEFECT from 1 to 6.

START : Press the "ENTER" button, it will start to eliminate defects "PROCESSING NOW..." will be displayed on the monitor.

In case of manual IRIS lens, you should cover the lens.



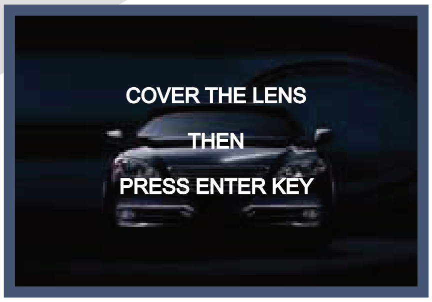
DEFECT

▶ SENSE-UP x8

DIFF 4

START ↵

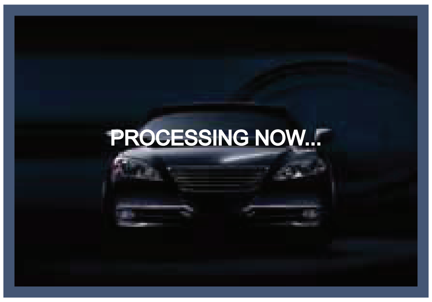
RETURN RET ↵



COVER THE LENS

THEN

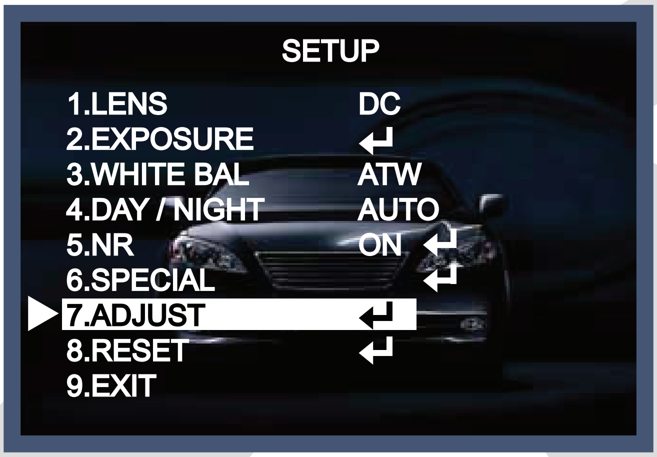
PRESS ENTER KEY



PROCESSING NOW...

Adjust

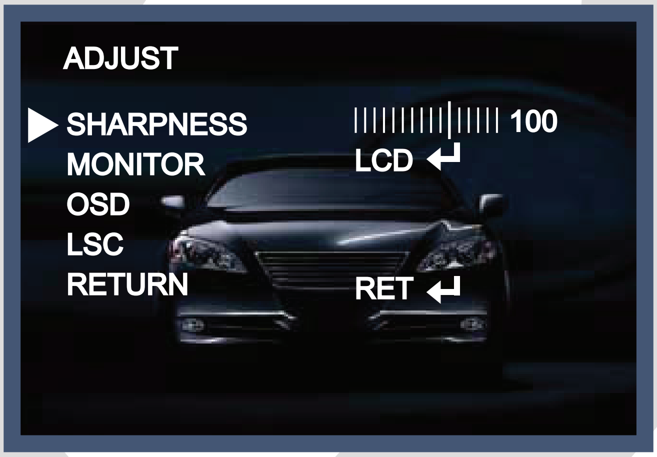
1. When the SETUP menu screen is displayed, select ADJUST using the Up and Down buttons.



SETUP

1.LENS DC
2.EXPOSURE ↵
3.WHITE BAL ATW
4.DAY / NIGHT AUTO
5.NR ON ↵
6.SPECIAL ↵
▶ 7.ADJUST ↵
8.RESET ↵
9.EXIT

2. Select the desired mode by using Up or Down button..



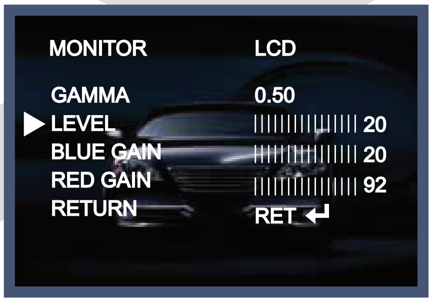
ADJUST

▶ SHARPNESS 100
MONITOR LCD ↵
OSD
LSC
RETURN RET ↵

SHARPNESS : Improving image clarity. The level can be adjusted to obtain an improved image.

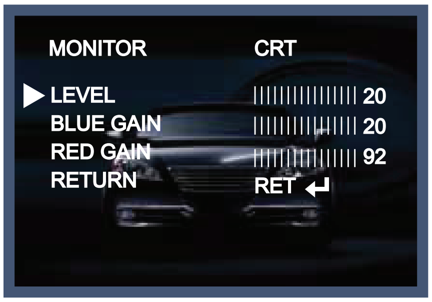
However, when the level is set too high it can distort the image or cause noise.

You can adjust from level 1 to 100, and can set to monitor function as LCD, and CRT.



MONITOR LCD

GAMMA 0.50
▶ LEVEL 20
BLUE GAIN 20
RED GAIN 92
RETURN RET ↵

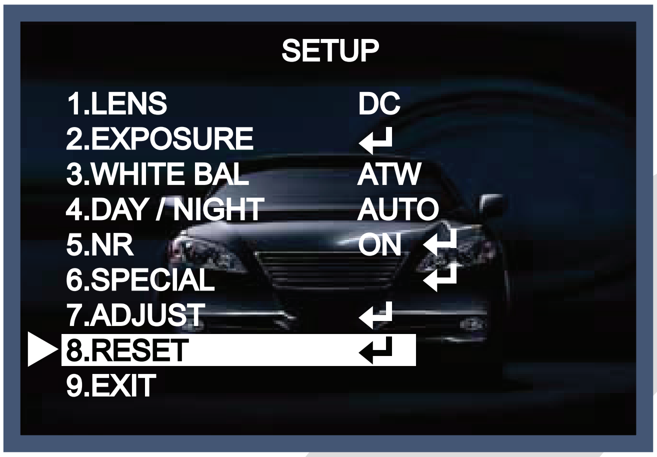


MONITOR CRT

▶ LEVEL 20
BLUE GAIN 20
RED GAIN 92
RETURN RET ↵

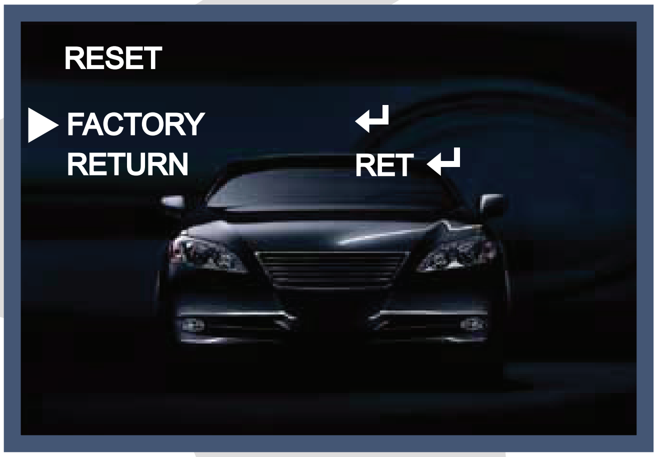
Reset

Resets the camera settings to the factory defaults.



SETUP

1.LENS DC
2.EXPOSURE ↵
3.WHITE BAL ATW
4.DAY / NIGHT AUTO
5.NR ON ↵
6.SPECIAL ↵
7.ADJUST ↵
▶ 8.RESET ↵
9.EXIT

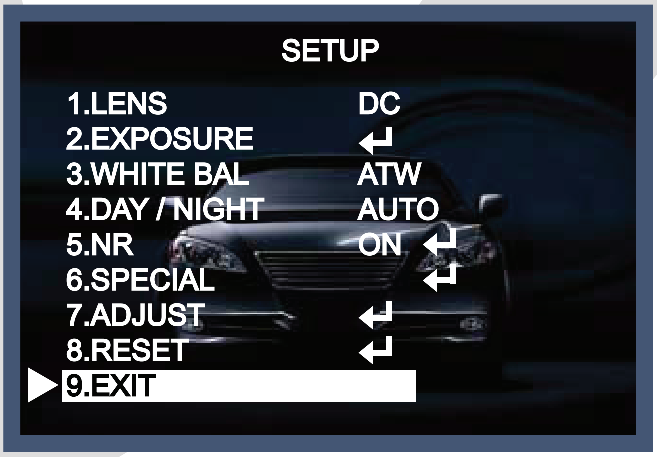


RESET

▶ FACTORY ↵
RETURN RET ↵

Exit

Press the SET button in the EXIT menu to save the current settings and exit the SETUP menu.



SETUP

1.LENS DC
2.EXPOSURE ↵
3.WHITE BAL ATW
4.DAY / NIGHT AUTO
5.NR ON ↵
6.SPECIAL ↵
7.ADJUST ↵
8.RESET ↵
▶ 9.EXIT

Trouble Shooting

PROBLEM	POSSIBLE CAUSE
Northing appears on the screen.	Check the power cable, power supply output and video connection between the camera and monitor.
The image on the screen is dim.	Are the camera lens or the lens glass dirty? Clean the lens / glass with a soft clean cloth. Adjust the monitor controls, as required. If the camera is facing a very strong light, change the camera position. Adjust the lens focus.
The image on the screen is dark.	Adjust the contrast control of the monitor. If there is an intermediate device, correctly set the 75Ω/Hi-z.
The camera is not working properly and the surface of the camera is hot.	Check the camera is correctly connected to an appropriate regulated power source.
Motion Detection is not activated.	Has MOTION DET been set to ON in the menu? Has MD AREA been properly defined?
The color of the picture is not correct.	Check the settings in WHITE BALANCE menu.
The image on the screen flickers.	Make sure that the camera isn’t facing direct sunlight or fluorescent lighting. If necessary,change the camera position.
The SENS-UP does not work.	Check that the AGC setting in the EXPOSURE menu is’t set to OFF. Check the EXPOSURE menu and make sure SHUTTER is set to------.

- MEMO -